



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,767	11/30/2000	Eduard Gast	15268.1	7760

22913            7590            02/06/2003  
WORKMAN NYDEGGER & SEELEY  
1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UT 84111

EXAMINER	
FELTON, AILEEN BAKER	
ART UNIT	PAPER NUMBER

3641

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/646,767</b>	Applicant(s) <b>Gast et al</b>						
	Examiner <b>Aileen Felton</b>	Art Unit <b>3641</b>						
								
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>								
<b>Period for Reply</b> <p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>								
<b>Status</b> <p>1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Jan 6, 2003</u></p> <p>2a) <input type="checkbox"/> This action is FINAL.      2b) <input checked="" type="checkbox"/> This action is non-final.</p> <p>3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p>								
<b>Disposition of Claims</b> <p>4) <input checked="" type="checkbox"/> Claim(s) <u>1-16</u> is/are pending in the application.</p> <p>4a) Of the above, claim(s) <u>7</u> is/are withdrawn from consideration.</p> <p>5) <input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6) <input checked="" type="checkbox"/> Claim(s) <u>1-6 and 8-16</u> is/are rejected.</p> <p>7) <input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.</p>								
<b>Application Papers</b> <p>9) <input type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10) <input type="checkbox"/> The drawing(s) filed on _____ is/are a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p> <p>11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.</p> <p>12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>								
<b>Priority under 35 U.S.C. §§ 119 and 120</b> <p>13) <input checked="" type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a) <input checked="" type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of:</p> <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Certified copies of the priority documents have been received.</li> <li>2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</li> <li>3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ol> <p>*See the attached detailed Office action for a list of the certified copies not received.</p>								
<p>14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).</p> <p>a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.</p> <p>15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>								
<b>Attachment(s)</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</td> <td style="width: 50%;">4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____</td> </tr> <tr> <td>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</td> <td>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</td> </tr> <tr> <td>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>4</u></td> <td>6) <input type="checkbox"/> Other: _____</td> </tr> </table>			1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____	2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)	3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>4</u>	6) <input type="checkbox"/> Other: _____
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____							
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)							
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>4</u>	6) <input type="checkbox"/> Other: _____							

Art Unit: 3641

## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election without traverse of the species of nitroguanidine, strontium nitrate, titanium dioxide, iron oxide, methylhydroxyethylcellulose and platinum in Paper No. 12 is acknowledged.
2. Claim 7 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 12.

### ***Specification***

3. The abstract of the disclosure is objected to because the abstract contains the word "said" in line 1. Correction is required. See MPEP § 608.01(b)

### ***Claim Rejections - 35 USC § 112***

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites that component c is a carrier for a platinum metal. It is not clear how this is accomplished.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the

Art Unit: 3641

explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 12 recites the broad recitation "from about 2-12 wt. %", and the claim also recites "preferably in an amount of about 4-10 wt. %" which is the narrower statement of the range/limitation.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al(6,149,745) in view of Niles(3,929,530).

Matsuda et al discloses a gas generating composition for use in air bags that can comprise 5-60 % of nitroguanidine, 25-90 % of oxidizer, and 3-30 % of zirconium oxide(col. 3, lines 1-9). The oxidizer can comprise a mixture of strontium nitrate and iron oxide. The composition can

Art Unit: 3641

also comprise a binder that is a sodium salt of carboxymethylcellulose. Example 11 shows the binder in the amount from 3-10 % (col. 4, line 4). The use of platinum as a catalyst, the surface area of the slag trap, and the particular amounts of the oxidizers is not disclosed.

Niles teaches a propellant composition that is cool-burning and develops large amounts of gaseous combustion products that uses platinum as a catalyst (col. 3, lines 20-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of strontium nitrate and iron oxide within the range disclosed by Matsuda since Matsuda discloses that the oxidizers can be used as a mixture of two or more kinds (col. 2, lines 48-49). It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). The surface area of the slag trap is an inherent property of the composition of Matsuda. It would also have been obvious to use the teaching of the platinum catalyst with the composition of Matsuda since Niles suggests that the platinum catalyst appears to stabilize the burn rate. Niles also suggests the use of the catalyst with a composition that is cool-burning and develops large amounts of gaseous combustion products which is precisely the manner in which air bag propellants operate.

7. Claims 1-6, 8-12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent(4411654) in view of Niles(3,929,530).

Art Unit: 3641

The German Patent discloses a gas generating composition for use in air bags that comprises at least 40 % of nitroguanidine, 20-70 % of an alkaline earth metal nitrate, up to 40 % of titanium dioxide with a specific surface area of more than  $8 \text{ m}^2/\text{g}$ . The composition can also include silicates. However, the use of platinum as a catalyst is not disclosed.

Niles teaches a propellant composition that is cool-burning and develops large amounts of gaseous combustion products that uses platinum as a catalyst(col. 3, lines 20-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of the platinum catalyst with the composition disclosed in the German patent since Niles suggests that the platinum catalyst appears to stabilize the burn rate. Niles also suggests the use of the catalyst with a composition that is cool-burning and develops large amounts of gaseous combustion products which is precisely the manner in which air bag propellants operate.

### *Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Art Unit: 3641

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Aileen B. Felton